ECON 222A
Macroeconomic Theory I

The Asset Market, Money, and Prices

Lecture 13

Today’s Lecture

- Final on April 16th: tutorial?
- PS3 is due on the 18th
- Today office hours 1.00-2.30pm
- What is Money?

Introduction

- We covered two markets: Labor and Goods/Services.
- Now we add assets to complete our model of the Macroeconomy.

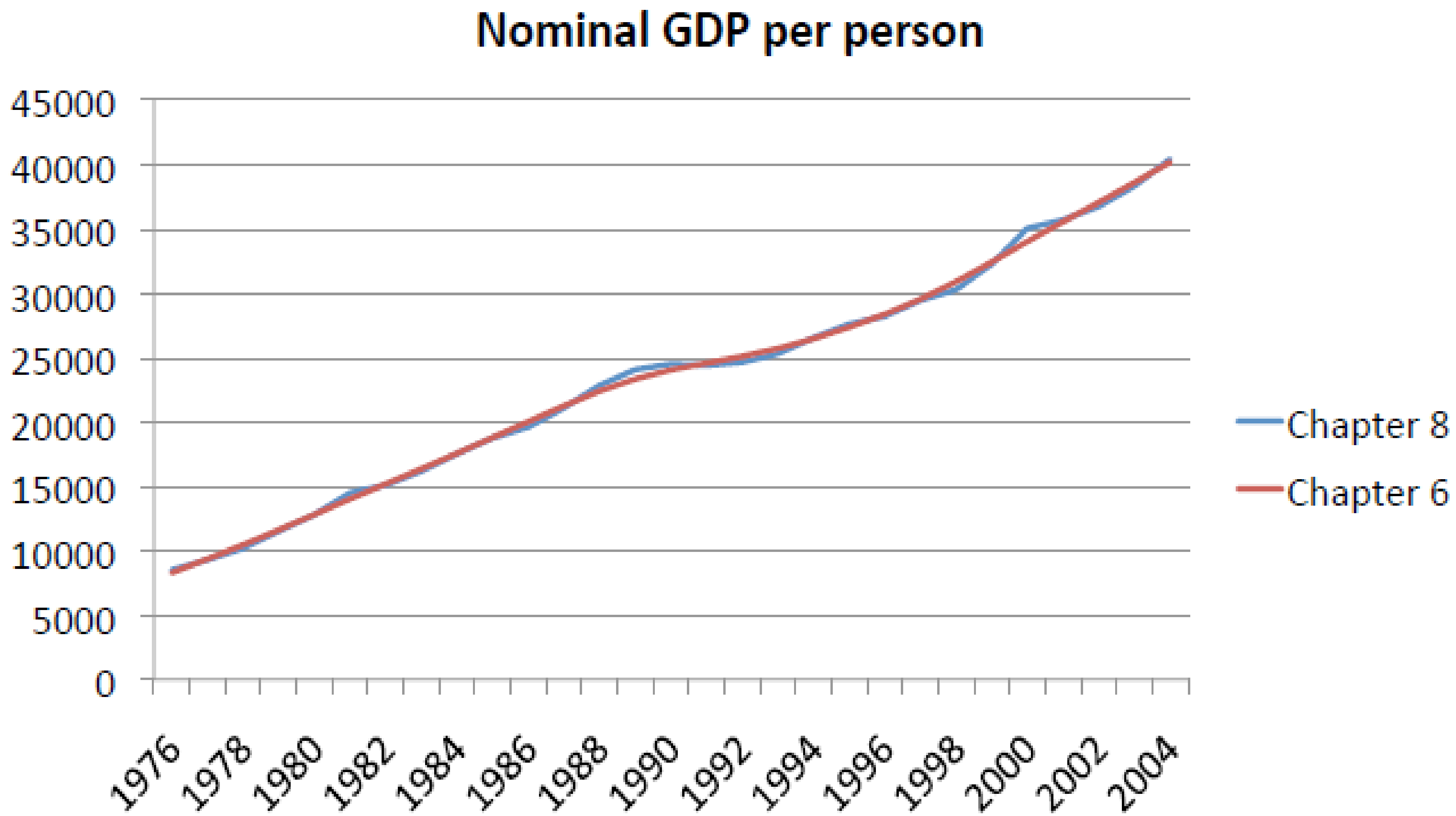
A. Define money and why people hold it

B. Study money demand decision as part of a broader portfolio decision

C. Introduce the Asset market equilibrium condition $M^s = M^d$

D. The Price level is related to the level of M^s

Growth Vs. Cycles



Assets

- What to think of?

- Stocks, bonds, foreign currencies, gold, houses, paintings, rare stamps…

- Money will be the asset of focus

What is Money?

- Assets that are widely used and accepted as payment
- Historically: gold, silver
- More recently: Cash
- In prison/Army: Cigarettes
- In Mexico: US Dollars.

Functions of Money

1. Medium of exchange

– It's a device for making transactions

2. Unit of account

– It's the basic unit for measuring economic value

3. Store of value

– Money allows you to hold wealth

Medium of Exchange

- Allows people to trade their labor for money, then use it to buy goods in separate transactions.
- Permits trade with less time cost and effort, allows specialization.
- Barter is inefficient—requires a “double coincidence of wants”. Think of E-bay/Kijiji.

Unit of Account

- Basic unit for measuring economic value
- A uniform measure simplifies comparisons between goods (or prices, wages and incomes)

Store of Value

- It is one of the possible forms you can keep your savings
- Like any asset, Money allows you to hold wealth

Measuring Money

- We need to Measure Money
- There are different measures of the money stock.
- Monetary Aggregates

— the official measures of the money stock.

- The various monetary aggregates differ in how narrowly they define the concept of money.

The Monetary Aggregates

- Various assets are used for payment

– they have different degrees of being ‘money’

- So there can be various measures of the total money stock of a country

– these measures are the monetary aggregates

How Are They Defined?

- Start from narrowest to broadest definitions:
- **M1**: primarily currency and balances in chequing accounts. (roughly $5,000 per person; all components used in making payments)

- **M2**= M1 + personal saving deposits (including those with a fixed term, and non-personal notice deposits.)

- **M2+** = M2 plus accounts at non-bank financial institutions (ex: credit unions)

- **M3**= M2 + term deposits of businesses and foreign currency holdings of Canadian residents.
- Not all are directly usable for payments but can be sold quickly to get money.

TABLE 7.1

The Canadian Monetary Aggregates (January 2004)

M1	**$152.9 billion**
Currency	$40.7 billion
Personal chequing accounts	$32.1 billion
Current accounts	$80.1 billion
M2	**$600.3 billion**
Components of M1	$152.9 billion
Personal savings deposits	$389.8 billion
Nonpersonal notice deposits	$57.6 billion
M2+	**$847.8 billion**
Components of M2	$600.3 billion
Deposits at trust and mortgage loan companies	$9.6 billion
Deposits at caisses populaires and credit unions	$135.1 billion
Annuities and deposits at government savings institutions	$48.1 billion
Money market mutual funds	$54.7 billion
M3	**$828.2 billion**
Components of M2	$600.3 billion
Nonpersonal fixed-term deposits	$152.4 billion
Foreign currency deposits held by residents	$75.5 billion

Source: *Bank of Canada Weekly Banking and Financial Statistics*, July 2004, Tables E1 and C2. Components do not sum exactly to the aggregates because of adjustments listed in the source. Reprinted with permission from the Bank of Canada.

Money Supply

- The amount of money available in an economy
- We assume the Bank of Canada sets the money supply
  – In practice this is indirect: it affects the short term interest rate

How to Affect the Money Stock?

- BoC can affect the Money stock with open market operations (purchases and sales of assets by the central bank)

1. It can use new currency to buy assets (e.g. government bonds) from the public

– raises M^s through open market purchase

2. It can pile up reserves by selling bonds

– lowers M^s through open market sale

- If Central Banks finance the government expenditure by printing money, can induce inflation

Portfolios and Demand for Assets

- How do people hold their wealth, with many assets available?
- Must make the portfolio allocation decision
- Portfolio: set of assets chosen by a wealth holder

Portfolios and Demand for Assets

- Factoring into the portfolio decision (trade-offs):
  - Expected returns (return not always known in advance ; high return is 'good')
  - Risk (Uncertainty of asset's return; high risk is 'bad')
  - Liquidity (ease, speed with which an asset can be traded; high liquidity is 'good')
- Asset Demand: you must hold your wealth somewhere so:

  sum of asset demands = total wealth